UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,111	09/10/2004	Matthew D Walker	36-1836	4154

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EXAMINER
ROBERTS, JESSICA M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/507,111	WALKER, MATTHEW D
	Examiner	Art Unit
	JESSICA ROBERTS	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *17 June 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 12-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *08/12/2008, 04/23/2008,*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Acknowledgement of Amendments

The amendment filed on 06/17/2008 overcomes the following

rejection(s)/objection(s):

The objection to specification for not having headings has been withdrawn in

view of Applicants amendment.

The rejection of 9-11 and 17-19 under 35 U.S.C § 101 as being directed to non-

statutory subject matter has been withdrawn in view of Applicants amendment.

Status of Claims

Claims 1-9, and 12-17 are pending in this application, claims **10-11** and **18-19**

have been cancelled.

Response to Arguments

Applicants arguments filed 06/17/2008 have been fully considered but they are

not persuasive.

With respect to applicants first argument that those of ordinary skill in the art

would in recognition of claims 9 and 17 as originally filed understand that these claims

would be embodied in software which would be run on the processor based devices

shown in Figure 1 and described in the cite portion of the present application (pg. 8 line

8-17).

The examiner respectfully disagrees. The cited portions of the specification (pg. 8

line 8-17 and figure 1) do not provide any illustration of a medium that encompasses a

computer program. The buffer as illustrated is for storing frames to be transmitted; thus

being used as storage for image data, and not for a computer program to be used for

encoding and decoding.

Thus the examiner maintains the rejection of 35 U.S.C §112 first paragraph, as

failing to comply with the written description requirement made in the previous rejection

for claims 9 and 17.

As to applicant's second argument that Fukunaga fails to teach or suggest the

feature of the present claims in which a second sequence of video frames

corresponding to the first sequence of video frames is encoded, the second sequence

of video frames being predicted from a single reference frame, and wherein if the

receiver sends an indication that one or more frames are corrupted, the transmitter

transmits data (frames) corresponding to the corrupted frame from the second

sequence of frames.

The examiner respectfully disagrees. Fukunaga discloses a moving picture

coder (fig. 1) where moving picture data is either processed by the coding unit (302) and

transmitted to the coded data transmitting unit (307), the moving picture data can

optionally be transmitted from the coding unit (302) to the decoding unit (303), therefore,

since the moving picture data is capable of splitting at the coding unit, it is clear to the

examiner that Fukunaga more than fairly teaches and suggest a second sequence of

video frames corresponding to the first sequence of video frames is encoded, where the

second sequence is received by the decoding unit (303). Further, Fukunaga discloses

all video frames in said second predicted from a single reference frame (column 3 line

8-11, and fig. 25). Fukunaga further teaches a negative acknowledgement signal is

transmitted when a frame is dropped or uncorrectly damaged in transmission, column

12 line 42-50. Frames a, b and c are decoded successfully, but frame d is dropped or

damaged in transmission. The moving picture decoder 400 returns a negative

acknowledgement signal (NACK). This NACK signal arrives at the moving picture coder

300 while the coding unit 302 is coding frame e with reference to frame d., column 13

line 57 to column 14 line 13). Therefore, it is clear to the examiner that Fukunaga

teaches to transmit an indication that a frame is corrupted, and transmitting data

corresponding to the corrupted frames of the second sequence, which reads upon the

claimed limitation.

As to applicants third argument regarding Fukunaga teaches away from using

the JP 95571/1995 scheme.

The examiner respectfully disagrees. Fukunaga teaches an object is to enable

data compression ratios to adapt to transmission conditions, column 3 line 27-28, where

JP95571/1995 has the disadvantage of being unable to do so. Therefore, it is clear to

the examiner that Fukunaga does not teach away from the JP 95571/1995 reference,

but improves upon the method taught by JP 95571/1995.

As to applicant's fourth argument regarding Fukunaga does not teach the feature

of "encoding a second sequence of video frames corresponding to said first sequence

of video frames, all video frames in said second sequence predicted from a single

reference frame".

The examiner respectfully disagrees. See the response for applicant's second

argument.

As to applicants fifth argument regarding Fukunaga does not teach "on receiving from the receiver an indication that one or more frames in said first sequence is corrupted, transmitting data corresponding to said one or more frames to the receiver from said second sequence of frames".

The examiner respectfully disagrees. See the response for applicant's second argument.

Claim Rejections - 35 USC § 112

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 9-11 and 17-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

2. Regarding claims 9-11 and 17-19, page 4. The specification does not mention or disclose a computer or processor based system.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-8, 12-13, and 14-16 are rejected under 35 U.S.C. 102(b) as being

anticipated by Fukunaga EP 0 763 944 A2.

5.   Regarding **claim 1,** Fukunaga teaches A method of transmitting video data,

comprising the steps of: encoding a first sequence of video frames, encoding a second

sequence of video frames corresponding to said first sequence of video frames (fig. 1),

all video frames in said second sequence predicted from a single reference frame

(column 3 line 8-11, and fig. 25) ; transmitting data from said first sequence to a receiver

(fig. 1) ; on receiving from the receiver an indication that one or more frames in said first

sequence is corrupted, transmitting data corresponding to said one or more corrupted

frames to the receiver from said second sequence of frames (column 13 line 57-column

14 line 13).

6.   Regarding **claim 2,** Fukunaga teaches A method according to claim 1, further

comprising: reverting back to transmitting data from said first sequence after, data from

the second sequence has been transmitted to the receiver (column 6 line 25-27 and

column 35-56 and fig.1, 302, 305, 307,308, and 309).

7.   Regarding **claim 3,** Fukunaga teaches A method of compensating for

transmission errors in a video data signal comprising: transmitting a first sequence of

video frames from a transmitter to a receiver (column 6 line 16-24), detecting one or

more corrupted frames in said first sequence (column 12 line 45-50); generating an

indication that one or more frames in said first sequence is/are corrupted (column 12

line 42-50); in response to said indication, transmitting frames corresponding to said

one or more corrupted frames from a second sequence of video frames, said second

sequence corresponding to said first sequence (column 13 line 45 to column 14 line 16

and fig. 11) all video frames in said second sequence predicted from a single reference

frame (column 3 line 8-11).

8.   Regarding **claim 4,** Fukunaga teaches A method according to claim 3, further

comprising reverting back to transmitting frames from said first sequence after frames

have been transmitted to the receiver from the second sequence (column 6 line 25-27

and column 35-56 and fig.1, 302, 305, 307,308, and 309).

9.   Regarding **claim 5,** Fukunaga teaches A method according to claim 3, wherein

the step of detecting corrupted frames is carried out at the receiver (column 13 line 59

to column 14 line 3).

10.   Regarding **claim 6**, Fukunaga teaches A method according to claim 3, wherein

the step of generating an indication that frames are corrupted is carried out at the

receiver (column 13 line 59 to column 14 line 3, and fig. 2, 407).

11.   Regarding **claim 7,** Fukunaga teaches A method according to claim 3, wherein

the step of generating an indication that frames are corrupted includes the receiver

generating an indication signal and transmitting the indication signal to the transmitter

(column 13 line 59 to column 14 line 2. Further since the decoder returns a NACK

signal to the coder if there is a dropped or damaged frame in transmission, it is clear to

the examiner that the decoder would generate a signal to indicate corrupted frames to

the encoder).

12.   Regarding **claim 8,** Fukunaga teaches A method according 3, wherein the step

of transmitting frames from said second sequence is performed at the transmitter

(column 6 line 16-24 and fig, 1, 307), the transmitted frames from said second

sequence being received by the receiver (column 7 line 7-10 and fig. 2, 401).

13.   Regarding **claim 12,** which recite a corresponding apparatus to the transmitting

method of claim 1. Thus the analysis and rejection made in claim 1 also apply here

because the method for transmitting video data would necessitate the apparatus in

claim 12.

14.   Regarding **claim 13,** see rejection and analysis for claim 2.

15.   Regarding **claim 14,** Fukunaga teaches A System for compensating for

transmission errors in a video data signal comprising: a transmitter for transmitting a

first sequence of video frames (fig. 1); a receiver for receiving said first sequence (fig.

2); means for detecting one or more corrupted frames in said first sequence (column 12

line 42-50); means for transmitting frames corresponding to said one or more corrupted

frames from a second sequence of video frames, said second sequence corresponding

to said first sequence (column 13 line 53 to column 14 line 13), all video frames in said

second sequence predicted from a single reference frame (column 3 line 8-11).

16.   Regarding **claim 15,** Fukunaga teaches A system according to claim 14, wherein

the means for detecting corrupted frames in said first sequence is at the receiver (fig. 2,

407).

17.   Regarding **claim 16,** system according to claim 14 wherein the transmitter is

operable to transmit frames from said second sequence to the receiver after detection

of one or more corrupted frames in said first sequence (column 13 line 53 to column 14

line 13).

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

19.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

20.   Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fukunaga et al., EP 0 763 944 A2.

21.   Regarding claim 9, Although Fukunaga is silent in regards to a tangible computer

readable storage medium carrying computer readable code representing instructions for

causing a computer to execute the method, it would be obvious to one of ordinary skill

in the art that when performing digital signal processing the use of a digital signal

processor is used. Further a digital processor and computer program product for

processing digital signals are functional equivalents of one another and are used

interchangeably. Therefore, it would have been obvious to one of ordinary skill in the

art at the time of the invention to incorporate a storage medium carrying instructions to

cause a computer to execute the claimed method for use when performing digital signal

processing.

22.   Regarding **claim 17,** see rejection and analysis for claim 9.

23.   Regarding **claim 18,** see rejection and analysis for claim 10.

Conclusion

24.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JESSICA ROBERTS whose telephone number is

(571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-

Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax

phone number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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